

## **ABSTRACT OF THE DISCLOSURE**

A distributed simulation system is provided in which timesteps may be divided  
5 into a first phase (referred to as the zero time phase herein) and a second phase (referred  
to as the real time phase herein). In the first phase, each distributed simulation node in  
the system may process one or more received commands without causing the simulator to  
evaluate the model in that distributed simulation node. In the second phase, each  
distributed simulation node may cause the simulator to evaluate the model in response to  
10 a command supplying one or more signal values to the model. In one embodiment, the  
second phase may iterate the evaluation of the model for each command received which  
supplies signal values. Each iteration may optionally include transmitting a command  
including the output signal values produced by the model during that iteration.